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RAW SEQUENCE LISTING DATE: 05/09/2003 PATENT APPLICATION: US/09/870,353A TIME: 14:31:42

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1 <110> APPLICANT: Wang, Yan
      2
              Xi, Lei
      3
              Prosen, Dennis E.
              MJ Bioworks, Inc.
      5 <120> TITLE OF INVENTION: Improved Nucleic Acid Modifying Enzymes
      6 <130> FILE REFERENCE: 020130-000111US
C--> 7 <140> CURRENT APPLICATION NUMBER: US/09/870,353A
      8 <141> CURRENT FILING DATE: 2001-05-30
      9 <150> PRIOR APPLICATION NUMBER: US 60/207,567
     10 <151> PRIOR FILING DATE: 2000-05-26
     11 <150> PRIOR APPLICATION NUMBER: US 09/640,958
     12 <151> PRIOR FILING DATE: 2000-08-16
     13 <160> NUMBER OF SEQ ID NOS: 34
     14 <170> SOFTWARE: PatentIn Ver. 2.1
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Input Set : N:\Crf4\05062003\I870353A.raw
Output Set: N:\CRF4\05072003\I870353A.raw

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## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/870,353A TIME: 14:31:42

DATE: 05/09/2003

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Output Set: N:\CRF4\05072003\1870353A.raw

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109 110	Lys	Met	Ile 35		Phe	Thr	Tyr	Asp		Gly	Gly	Gly	Lys 45		Gly	Arg
111	Gly			Ser	Glu	Lys		, -	Pro	Lys	Glu			Gln	Met	Leu
112 113		50 Lys	Gln	Lys	Lys		55 Gly	Gly	Val	Thr		60 Pro	Lys	Ala	Leu	
114	65	7.7	,	m	D	70	Б.	<b>~</b> 1	<b>C</b> 1	70.7	75	** - 1	<b>C</b> 1	DI: .	TT - 7	80
115 116					Pro 85					. 90					95	
117 118		-	_	100	Pro		_		105					110		
119 120	Arg	Gly	Gly 115	Arg	Val	His	Arg	Ala 120	Pro	Glu	Pro	Tyr	Lys 125	Ala	Leu	Arg
121 122	Asp	Leu 130	Lys	Glu	Ala	Arg	Gly 135	Leu	Leu	Ala	Lys	Asp 140	Leu	Ser	Val	Leu
123 -1-24		Leu			Gly		Gly					Asp				Leu 160
125 126					Leu 165											
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131	Glu			Leu	Trp	Leu			Glu	Val	Glu			Leu	Ser	Ala
132 133	W-1	210	ת ות	n; o	Mot	C1,1	215	Thr	C1.,	17-1	Λνα	220	7) 00	Wa l	717	ጥ፡፡
134	225	цеи	Ата	птэ	Met	230	нта	1111	СТУ	val	235	пеп	ASP	vaı	Ата	240
135		Ara	Ala	T.e.ii	Ser		Glu	Val	Ala	Glu		Tle	Ala	Ara	Len	
136		9			245		014			250				5		
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138				260	,			-	265					270		-
139	Asp	Gln	Leu	Glu	Arg	Val	Leu	Phe	Asp	Glu	Leu	Gly	Leu	Pro	Ala	Ile
140			275					280					285			
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143		Ala	Leu	Arg	Glu		His	Pro	Пе	۷al		Lys	тте	Leu	GIn	
144	305	C1	T	mb	т	310	Τ	C~~	<b>ՄԻ∽</b>	π∽	315	7\ c.~	Dro	T C11	Dro	320 Asp
145	arg	GIU	ьeu	Inr	Lys	ьeu	гÀг	ser	Inr	ıyr	тте	Asp	110	ьeu	PLO	vah

### RAW SEQUENCE LISTING

DATE: 05/09/2003 PATENT APPLICATION: US/09/870,353A TIME: 14:31:42

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151		Ile	Pro	Val	Ara	Thr	Pro	Leu	Ġlv	Gln	Ara	Ile	Ara	Ara	Ala	Phe	Ile
152			370					375	- · · <u>- ·</u>		5		380	9			
153		Ala		Glu	Glv	Trp	Len		Val	Ala	Len	Asp		Ser	Gln	Tle	Glu
154		385	020	010	017	11.5	390			1120	u	395	- 1 -	001	0411		400
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156		Lou	1119	, 41	LCu	405	1113	шса	DCI	O = y	410	Olu	11011	пси	110	415	Vai
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160		m1	<b>*</b> 1	435	D1			_	440	0.1		_		445	_	_	
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166						485					490					495	
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#### RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/870,353A

Input Set : N:\Crf4\05062003\1870353A.raw
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VERIFICATION SUMMARY

DATE: 05/09/2003

PATENT APPLICATION: US/09/870,353A

TIME: 14:31:43

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